

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 July 2005 (21.07.2005)

PCT

(10) International Publication Number
WO 2005/065544 A1

(51) International Patent Classification⁷: **A61B 5/04**

(21) International Application Number:
PCT/KR2004/001573

(22) International Filing Date: 29 June 2004 (29.06.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2004-0001127 8 January 2004 (08.01.2004) KR

(71) Applicant (for all designated States except US): LIMS
TECHNOLOGY, CORP [US/KR]; 538-8, Bongmyeong-
dong, Yuseong-gu, Daejeon 305-709 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): JIN, Kyung-Soo
[KR/KR]; 103-1507 Sewon Cheongsil Apt., Sugok

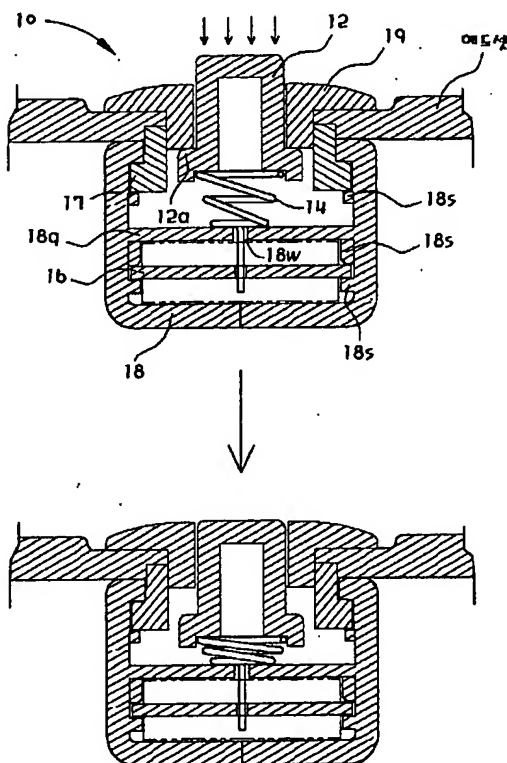
2-dong, Heungdeok-gu, Cheongju-si, Chungcheong-
buk-do 361-793 (KR). LIM, Jong-Jin [KR/KR]; 103-601,
Daelim Apt, Taepyeong-dong, Jung-gu, Daejeon 301-150
(KR). BYEON, Jong-Gil [KR/KR]; 601-506 Jugong Apt.,
6-Danji, Panam 2-dong, Dong-gu, Daejeon 300-776 (KR).
KIM, Eun-Tae [KR/KR]; 208-203 Jugong Apt., 2 Danji,
Yongsan-dong, Chungju-si, Chungcheongbuk-do 380-761
(KR). PARK, Jin-Ho [KR/KR]; 103-706 Samil Apt.,
Naesu-ri, Naesu-eup, Cheongwon-gun, Chungcheong-
buk-do 363-932 (KR).

(74) Agent: PARK, Hyeong-Kyun; Gain International Patent,
Room No. 205, Ace Techno Tower 5sec., 197-22, Guro-
dong, Guro-gu, Seoul 152-766 (KR).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,

[Continued on next page]

(54) Title: ACTIVE DRY SENSOR MODULE FOR MEASUREMENT OF BIOELECTRICITY



(57) Abstract: Disclosed is an active dry sensor module for measurement of bioelectricity. The active dry sensor module includes a hollow main body provided with an insertion hole formed through the upper surface thereof, a cap interlocked with the insertion hole, and provided with a uniform central internal cross section and an upper fringe protruded from the upper surface thereof; an active electrode inserted into the cap so that the active electrode is slidable, and provided with the upper surface exposed to the outside and a latching protrusion protruded from the lower part thereof and latched onto a lower end of the cap; a spring provided with one end contacting the lower part of the active electrode, installed in the main body, and electrically connected to the main body; and an amplification circuit installed in the main body, under the condition that the amplification circuit contacts the other end of the spring, for receiving and processing a biomedical signal passed through the spring. The active dry sensor module of the present invention excludes the use of a conductive gel, thereby not supplying unpleasantness and discomfort to a reagent and preventing the interference of the signal due to a noise component. Further, the active dry sensor module of the present invention amplifies the biomedical signal to a desired level, thereby precisely and easily measuring the biomedical signal.



KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,
MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.